## CLAIMS

1. A power steering pump comprising:

a housing defining a bore having an axis;

a fluid discharge port communicating with the bore at a first axial location;

a fluid bypass port communicating with the bore at a second axial location;

a flow control valve slideably received in the bore, and providing an inlet to the bypass port;

electrical means for sliding the flow control valve within the bore to vary the size of the inlet to the bypass port.

2. A power steering pump in accordance with claim 1 wherein the valve slides between a closed position wherein the valve closes the inlet to prevent communication between the fluid discharge port and the fluid bypass port, and an open position wherein fluid flows from the bore to the fluid discharge port through the inlet.

3. A power steering pump in accordance with claim 2 wherein the flow control valve slides axially between the open position and the closed position.

4. A power steering pump in accordance with claim 2 wherein the flow control valve rotates between the open position and the closed position.

5. A power steering pump in accordance with claim 2 further comprising means for biasing the valve in the open position.

6. A power steering pump in accordance with claim 1 further comprising pumping elements disposed within the housing, said pumping elements comprising a cam chamber and a rotor having retractable vanes disposed within the cam chamber.

7. A power steering pump comprising:

a housing defining a bore having an axis, an outlet adjacent one end of the bore, a fluid discharge port communicating with the bore at a first axial location, and a fluid bypass port communicating with the bore at a second axial location;

pumping elements disposed within the housing for pumping fluid to said fluid discharge port and communicating with said bypass port for drawing fluid therefrom;

a flow control valve slideably received in the bore and defining an inlet to the bypass port;

a plunger operatively connected to the flow control valve and responsive to an applied electromagnetic field to slide the flow control valve between a closed position wherein the flow control valve closes the inlet and an open position wherein fluid flows from the bore to the fluid bypass port through the inlet;

a spring operatively coupled to the flow control valve for biasing the flow control valve in the open position;

an electromagnetic coil for applying an electromagnetic field to the plunger to vary the size of the inlet to the fluid bypass port.

8. A power steering pump in accordance with claim 7 wherein the pumping elements comprise a cam chamber and a rotor having retractable vanes disposed within the cam chamber.

9. A power steering pump in accordance with claim 7, further comprising a sleeve received in the bore and having an opening communicating with the fluid bypass port, and wherein the flow control valve is slideably received within the sleeve and includes an opening that cooperates with the opening in the sleeve to define the inlet to the fluid bypass port.

10. A power steering pump comprising:

a housing defining a bore having an axis and open end, a fluid discharge port communicating with the bore at a first axial location proximate to the open end, and a fluid bypass port communicating with the bore at a second axial location;

pumping elements disposed within the housing and adapted for drawing fluid from the fluid bypass port and pumping fluid to said fluid discharge port;

a sleeve received in bore and having an opening communicating with the fluid bypass port;

a flow control valve slideably received in the bore having an opening, said flow control valve being slideable between a closed position that closes the opening in the sleeve and an open position wherein the opening in the flow control valve cooperates with the opening in the sleeve to define an inlet to allow fluid flow to the fluid bypass port;

a tubular extension sealing mounted onto the housing at said open end;

a plunger disposed within the tubular extension and operatively connected to the flow control valve, said plunger being responsive to an applied electromagnetic field to slide the valve axially between the closed position and the open position and

to vary the position of the flow control valve in the open position to vary the size of the inlet;

a spring engaging the plunger for biasing the flow control valve in the open position;

an electromagnetic coil disposed about the extension and adapted for applying an electromagnetic field to the plunger.

11. A power steering pump in accordance with claim 10 wherein the extension includes an end cap, and wherein plunger includes a rear end adjacent the end cap and a pressure equalization passage extending from the rear end and communicating with fluid adjacent the flow control valve.